

A2
Sub B4
contacting a manganese ore with a reducing gas that does not contain oxygen and which contains at least one material selected from the group consisting of hydrogen, carbon monoxide, sulfur dioxide, hydrogen sulfide and methane in an amount ranging from 1.0 to 2.0 times the theoretical amount required to reduce the manganese ore at a temperature ranging from 400 to 790° C, thereby preparing said treated manganese ore from which manganese sulfate is produced.

9. (Amended) The process for producing a treated manganese ore of Claim 7, wherein the manganese ore is kept in contact with the reducing gas at a temperature ranging from 400 to 790° C for a period necessary to sufficiently reduce the manganese ore with a reducing gas.

Sub B6
A3
10. (Amended) A process for producing the treated manganese ore of Claim 1, which comprises:

contacting a manganese ore with a reducing gas that does not contain oxygen and which contains at least one material selected from the group consisting of hydrogen, carbon monoxide, sulfur dioxide, hydrogen sulfide and methane in an amount ranging from 1.0 to 2.0 times the theoretical amount required to reduce the manganese ore at a temperature ranging from 400 to 790° C; and

immersing the reduced ore obtained in water having a temperature ranging from 70° C to the boiling point thereof as measured at atmospheric pressure, thereby preparing said treated manganese ore from which manganese sulfate is produced.

11. (Amended) The process for producing the treated manganese ore of Claim 10, which further comprises washing the reduced ore obtained.

12. (Amended) The process for producing the treated manganese ore of Claim 10, which further comprises washing and then filtering the reduced ore obtained.

Please cancel Claims 13 and 14.

A4
15. (Amended) The process for producing a treated manganese ore of Claim 13, wherein

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the reducing gas is diluted with an inert gas.

Q5
SUB 338
18. (Amended) The process for producing a treated manganese ore of Claim 17, wherein the rotary kiln has a cylindrical or prismatic shape.

21. (Amended) The process for producing a treated manganese ore of Claim 7, wherein the process is conducted continuously.

Q6
22. (Amended) The process for producing a treated manganese ore of Claim 8, wherein the process is conducted continuously.

SUB 310
23. (Amended) The process for producing a treated manganese ore of Claim 10, wherein the process is conducted continuously.

Q7
26. (Amended) The process for producing a treated manganese ore of Claim 24, wherein the reduced ore is continuously cooled.

SUB 312
27. (Amended) The process for producing a treated manganese ore of Claim 10, wherein the reduced ore is continuously cooled.

Please cancel Claim 31 in favor of new Claim 34 as follows:

SUB 315
34. (Newly Added) An electrolytic manganese dioxide which is used in batteries and which is prepared by:

Q8
dissolving the treated manganese ore of Claim 1 or 5 in sulfuric acid, thereby forming an acid manganese sulfate solution;

purifying the acid manganese sulfate solution; and

electrolytically oxidizing the manganese sulfate solution.

Please amend Claims 32 and 33 as follows:

Q9
32. (Amended) A process for producing electrolytic manganese dioxide which comprises:

adding sulfuric acid to the treated manganese ore of Claim 1 or 5 to dissolve the ore,